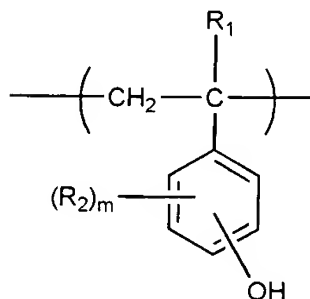


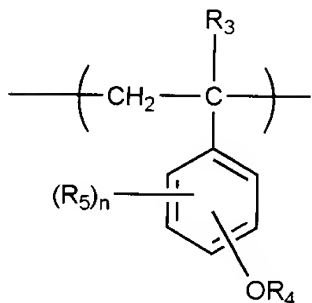
What Is Claimed:

1. An alkenylphenol copolymer characterized by that a copolymer consists of Component (A) containing a repeating unit represented by Formula (I)



Formula (I)

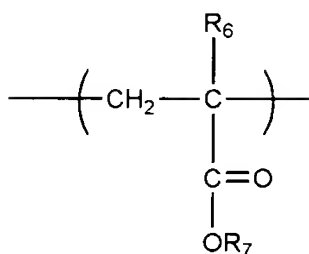
(wherein,  $\text{R}_1$  is hydrogen or methyl,  $\text{R}_2$  is alkyl having 1 to 5 carbons,  $m$  is 0, 1 or 2 and  $\text{R}_2$  is the same or different when  $m$  is 2) and a repeating unit represented by Formula (II)



Formula (II)

(wherein,  $\text{R}_3$  is hydrogen or methyl,  $\text{R}_4$  is a group to be eliminated and/or decomposed with an acid,  $\text{R}_5$  is alkyl having 1 to 5 carbons,  $n$  is 0, 1 or 2 and  $\text{R}_5$  is the same or different when  $n$  is 2) and Component (B) containing a

repeating unit represented by Formula (III)

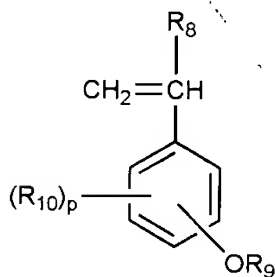


Formula (III)

(wherein, R<sub>6</sub> is hydrogen or methyl, and R<sub>7</sub> is a group having a t-butyl group and to be eliminated and/or decomposed with an acid), of which Components (A) and (B) are bound in block in the form of (A) - (B), has a ratio (M<sub>w</sub>/M<sub>n</sub>) of the weight-average molecular weight (M<sub>w</sub>) to the number-average molecular weight (M<sub>n</sub>) in a range of 1.00 and 1.50, and has no carboxylic acid residues.

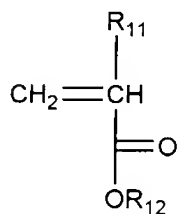
2. An alkenylphenol copolymer according to Claim 1 in which the weight-average molecular weight is 1,000 to 100,000.

3. A process for the preparation of the alkenylphenol copolymer according to Claim 1 or 2 in which a compound represented by Formula (IV) whose hydroxyl group of the phenol residue is protected



Formula (IV)

Sub A1  
 wherein, R<sub>8</sub> is hydrogen or methyl, R<sub>9</sub> is a group to be eliminated and/or decomposed with an acid, R<sub>10</sub> is alkyl having 1 to 5 carbons, p is 0, 1 or 2 and R<sub>10</sub> is the same or different when p is 2) is polymerized, or a compound of Formula (IV) and a vinylaromatic compound are copolymerized, by anionic polymerization using an anionic polymerization initiator as a polymerization initiator, followed by copolymerization with a (meth)acrylic ester represented by Formula (V)



Formula (V)

(wherein, R<sub>11</sub> is hydrogen or methyl, and R<sub>12</sub> is a group having a t-butyl group and to be eliminated and/or decomposed with an acid); and the obtained block copolymer is treated with an acid reagent to eliminate and/or decompose only a specified amount of the group protecting the phenolic hydroxyl group.

4. A process for the preparation of the alkenylphenol copolymer according to Claim 3 in which the step of eliminating and/or decomposing only a specified amount of the group protecting the phenolic hydroxyl group with an acid reagent is carried out at below 60°C.

Sub A2